Today's Topics:
5th International Symposium on Inverse Problems, Design and Optimization, IPDO2019
International Conference on Sensing and Imaging, ICSI 2018
Conference on Mathematical and Numerical Approaches for Multi-Wave Inverse Problems, 2019
PhD, Postdoc Positions: Optimization Frameworks for Deep Kernel Machines
Postdoc Position: Algorithms for Image Reconstruction in Spectral Computed Tomography
Table of Contents: Inverse Problems and Imaging
Table of Contents: Inverse Problems
Table of Contents: Journal of Inverse and Ill-posed Problems


Submissions for IPNet Digest:
              Mail to  ipnet-digest@math.msu.edu


Information about IPNet:
              http://ipnet.math.msu.edu


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From: George Dulikravich <dulikrav@fiu.edu>
Subject: IPDO2019 announcement and first call for papers
Date: Sunday, July 1, 2018 at 4:38 AM


Announcement and first call for papers for 5th international symposium on

INVERSE PROBLEMS, DESIGN AND OPTIMIZATION - IPDO2019
Tianjin, P. R. China
                                        September 24-26, 2019
http:/ipdo2019.ipdos.org

IPDO sequence of international symposia's main objective is to bring three communities of researchers (inverse problems, multidisciplinary design theory and optimization experts) together in a unique international forum that provides an excellent basis for cross-fertilization of ideas, as well as for the creation of new synergistic approaches and methodologies.
Contributed, invited and keynote papers dealing with robust, efficient solution methods in multidisciplinary practical applications are highly encouraged, such as in nanotechnology, chemistry, physics, aeronautics, astronautics, micro-electronics, bio-medicine, transport and sensing of pollutants, materials design and processing, remote sensing, non-destructive evaluation, variable material property determination, acceleration of single-objective and many-objective optimization algorithms, metamodels for high-dimensional problems, uncertainty quantification, unsupervised deep learning algorithms, real time decision making, and others.
Successful previous versions of the IPDO Symposium were held in Rio de Janeiro, Brazil (2004), Miami Beach, USA (2007), Joao Pessoa, Brazil (2010) and Albi, France (2013).

SUBMISSION OF CONTRIBUTED ABSTRACTS AND FULL PAPERS
Authors should send a two-page abstract in pdf (Portable Document Format) to
IPDO2019@HEBUT.EDU.CN as an attachment to their e-mail message by March 15, 2019.
Authors of inverse problems abstracts should also consider submitting full papers for
review and possible publication in the special issues of Inverse Problems in Science
and Engineering.

CHAIR OF THE IPDO2019
Prof. Xu Han
President of Hebei University
Tianjin, China
xhan@hebut.edu.cn
HONORARY CO-CHAIRS OF THE IPDO2019
Prof. George S. Dulikravich
Florida International University, Miami, USA
Profs. Helcio R. B. Orlande and Marcelo J. Colaco
Federal University of Rio de Janeiro, Brazil

INTERNATIONAL ORGANIZING COMMITTEE
Alifanov, O. (Russia), Bonett, M. (France), Cheng, G.D. (China), Cheng, J. (China),
Coello Coello, C.A, (Mexico), Duan, B.Y. (China), Egorov, I.N. (Russia), Friswell, M.
(UK), Ghattas, O. (USA), Hao, D.N. (Vietnam), Hasanoglu, A. (Turkey), Klibanov, M.
(USA), Lesnic, D. (UK), Liu, G.R. (USA), Marin, L. (Romania), Natterer, F. (Germany),
Potthast, R. (Germany), Ostrowski, Z. (Poland), Romanov, V.G. (Russia), Sebu, C.
(Malta), Silva Neto, A. (Brazil), Slodicka, M. (Belgium), Watzenig, D. (Austria),
Yagola, A.G. (Russia), Yuan, Y.X. (China).

IMPORTANT DATES
January 31, 2019     One-page proposals for organizing invited sessions with 5-6
speakers each
March 15, 2019       Two-page abstracts due          April 23, 2019     Abstract
acceptance
June 15, 2019        Full papers due                 July 15, 2019      Full paper
acceptance
July 1, 2019 - August 24, 2019     Early registration

LOCATION
IPDO2019 Symposium will be held in Holiday Inn Riverside, Tianjin, China, only 30
minutes by a bullet train from Beijing
(https://www.ihg.com/holidayinn/hotels/gb/en/tianjin/tsncr/hoteldetail).

CONTACT: Prof. Jie Liu     Hunan University, China        IPDO2019@HEBUT.EDU.CN

Submitted by: George S. Dulikravich, Ph.D., FASME, FAAM, FRAeS
Professor, Founder and Director, MAIDROC Laboratory
Founder and Editor-in-Chief, Inverse Problems in Science and Engineering journal
Department of Mechanical and Materials Engineering, Florida International University

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http://maidroc.fiu.edu              https://www.tandfonline.com/toc/gipe20/current

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From: "Quinto, Eric Todd" <Todd.Quinto@tufts.edu>
Subject: International Conference on Sensing and Imaging 2018
Date: Sunday, July 8, 2018

International Conference on Sensing and Imaging 2018 (ICSI 2018)
October 15-18, 2018
Guangxi University of Science and Technology, Liuzhou, China
URL: http://www.gxust.edu.cn/ICSI2018

Dear colleagues,

We are happy to inform you about ICSI 2018 at Guangxi University of Science and
Technology, Liuzhou, China, on October 15-18, 2018. ICSI 2018 aims to gather together
colleagues worldwide in the fields of sensing and imaging.  Conference topics include
image processing technologies and theory, sensor technologies, and applications
include but are not limited to NDE, medical/biological applications including
tomography and inverse problems, security, and engineering.

If you would like to speak at ICSI 2018, check out the article submissions page
http://www.gxust.edu.cn/ICSI2018/Publication.html .  The submission deadline is August
15, 2018 and all articles will be peer reviewed. We will notify you of acceptance by
September 15.

Accepted articles will be published in the proceedings of the conference in the book
series Lecture Notes in Electrical Engineering (LNEE) by Springer & Nature. LNEE is
indexed in ISI Proceedings, EI-Compendex, SCOPUS, MetaPress, and Springerlink.  We
also plan to edit a special issue entitled "Recent developments in Sensing and
Imaging" in the journal Sensing and Imaging from Springer & Nature. The Program
Committee will recommend 10 - 20 presented work at ICSI 2018 for possible publication
in this special issue.

Please contact lanzengmei@gxust.edu.cn if you have any questions about the conference.

Sincerely,

Todd Quinto
On behalf of the Academic Committee (chairs Nathan Ida and Ming Jiang)

Submitted by: Todd Quinto, Robinson Professor of Mathematics, Tufts University

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From: Michel Cristofol AMU <michel.cristofol@univ-amu.fr>

Subject: Conference announcement
Date: Wednesday, July 18, 2018

We would like to draw your attention to the following conference

   Mathematical and Numerical Approaches for Multi-Wave Inverse Problems

to be held

   April 1-5, 2019, in CIRM, Marseille, France.

You can find more details as well as some important dates at

   https://conferences.cirm-math.fr/1953.html

The focus of this conference is most specifically set on multiwave/hybrid inverse
problems. Within that framework, the scientific program has been constructed in order
to address the following topics:
- identification and reconstruction of unknown coefficients
- control of coupled phenomena
- regularization
- practical implementation of algorithms and co-design
One of the main objectives of this conference will be the exchange of ideas and tools
between different scientific communities, specially to favour the discussions between
researchers more involved in theoretical aspects of inverse problems with the ones
more interested in numerical implementation of these problems. We have also tried to
gather a number of researchers of international renown strongly involved in these
multi-modal applications.

We hope to see you next year in Marseille !

Best wishes,

the organizing committee
(L. Beilina, M. Bergounioux, M. Cristofol, A. da Silva)

Submitted by: Michel Cristofol

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From: Johan Suykens <Johan.Suykens@esat.kuleuven.be>
Subject: PhD and Postdoc positions KU Leuven: Optimization frameworks for deep kernel
machines
Date: July 18, 2018

PhD and Postdoc positions KU Leuven: Optimization frameworks for deep
kernel machines

The research group KU Leuven ESAT-STADIUS is currently offering 2 PhD

and 1 Postdoc (1 year, extendable) positions within the framework of the KU Leuven C1 project Optimization frameworks for deep kernel machines (promotors: Prof. Johan Suykens and Prof. Panos Patrinos).

Deep learning and kernel-based learning are among the very powerful methods in machine learning and data-driven modelling. From an optimization and model representation point of view, training of deep feedforward neural networks occurs in a primal form, while kernel-based learning is often characterized by dual representations, in connection to possibly infinite dimensional problems in the primal. In this project we aim at investigating new optimization frameworks for deep kernel machines, with feature maps and kernels taken at multiple levels, and with possibly different objectives for the levels. The research hypothesis is that such an extended framework, including both deep feedforward networks and deep kernel machines, can lead to new important insights and improved results. In order to achieve this, we will study optimization modelling aspects (e.g. variational principles, distributed learning formulations, consensus algorithms), accelerated learning schemes and adversarial learning methods.

The PhD and Postdoc positions in this KU Leuven C1 project (promotors: Prof. Johan Suykens and Prof. Panos Patrinos) relate to the following possible topics:

-1- Optimization modelling for deep kernel machines
-2- Efficient learning schemes for deep kernel machines
-3- Adversarial learning for deep kernel machines

For further information and on-line applying, see
https://urldefense.proofpoint.com/v2/url?u=https-3A__www.kuleuven.
be_personeel_jobsite_jobs_54740654&d=DwICaQ&c=nE__W8dFE-shTxStwXtp0A&r=
d_ce0_mh_PXvtyDkkix951B_s_t7QYc8Dtq82B52K8I&m=JjXaUVFauCZVM_rW-
9isRpF3JCXVjWs0ExV5mJSlemY&s=DHACdH0GOFzQytiAfDBHKfL1911kDT6wYFlQUIeL7Kg&e=" (PhD positions) and
https://urldefense.proofpoint.com/v2/url?u=https-3A__www.kuleuven.
be_personeel_jobsite_jobs_54740649&d=DwICaQ&c=nE__W8dFE-shTxStwXtp0A&r=
d_ce0_mh_PXvtyDkkix951B_s_t7QYc8Dtq82B52K8I&m=JjXaUVFauCZVM_rW-
9isRpF3JCXVjWs0ExV5mJSlemY&s=U4YzDIPkyimRuH7A1l5PuaNkrcCh5qx5F_HLiYZYHr0&e=" (Postdoc position)
(click EN for English version).

The research group ESAT-STADIUS
https://urldefense.proofpoint.com/v2/url?u=http-3A__www.esat.kuleuven.be_stadius&d=
DwICaQ&c=nE__W8dFE-shTxStwXtp0A&r=d_ce0_mh_PXvtyDkkix951B_s_t7QYc8Dtq82B52K8I&m=
JjXaUVFauCZVM_rW-9isRpF3JCXVjWs0ExV5mJSlemY&s=
EOnEZqNjlZ5tnaKTQcZTzxxWUVk8jkwRYEfSgUaxJTE&e= at
the university KU Leuven Belgium provides an excellent research environment being active in the broad area of mathematical engineering,

including data-driven modelling, neural networks and machine learning, nonlinear systems and complex networks, optimization, systems and control, signal processing, bioinformatics and biomedicine.

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From: Jakob Jorgensen <jakob.jorgensen@manchester.ac.uk>
Subject: Postdoc in Spectral Tomography Algorithms, University of Manchester, UK
Date: Tuesday, July 24, 2018

Dear all,

We are looking for an enthusiastic postdoc to join our research group in the Henry Moseley X-ray Imaging Facility at the University of Manchester to work on algorithms for image reconstruction in spectral computed tomography, please see details below.

Best wishes,
Jakob Jorgensen

Research Associate: A Reconstruction Toolkit for Multichannel CT

The goal of this EPSRC funded research project is to develop a new Reconstruction Toolkit for Multi-channel Computer Tomography (RT-MCT). The purpose is to provide novel functionality for reconstructing multi-spectral tomographic datasets. A key goal of this programme will be to
find iterative solutions and optimisation strategies to improve robustness of multi-spectral image reconstruction towards low dose imaging, under-sampled projections and various artefacts.

You will be expected to develop mathematical models of data generation in X-ray CT then use these to devise algorithms to recover images in the most efficient and reliable way. You would be expected to implement this and adapt it to the specific computing architectures available. You will also deploy RT-MCT into operation at our collaborating facilities, which will involve adapting it to the individual data requirements and educating facility and staff and users. Also you will assist with the supervision of research students, produce reports and presentations for project meetings, as well as writing manuscripts for publication.

Further information can be found at
https://www.jobs.manchester.ac.uk/DisplayJob.aspx?JobId=15730

Informal enquires can be made to
Dr Martin Turner, martin.turner@manchester.ac.uk

Closing date:
21 August 2018.

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From: "Cuixin.zhou" <newsletter-noreply@aimsciences.org>

Subject: New IPI vol. 12, no. 4 August 2018 issue is now available online
Date: Tuesday, July 10, 2018


Inverse Problems and Imaging (IPI)       August 2018      Volume 12, Number 4
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http://aimsciences.org/journal/1930-8337/2018/12/4

Submitted by: Cuixin Zhou  Publication Editor
American Institute of Mathematical Sciences Springfield, MO 65801 USA
zhoucuixin@163.com

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From: "noreply@iopscience.org" <noreply@iopscience.org>
Subject: Inverse Problems, Volume 34, Number 9, September 2018
Date: Thursday, July 26, 2018 at 6:21 AM

Inverse Problems        September 2018       Volume 34, Number 9

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Reconstruction of thin electromagnetic inhomogeneity without diagonal elements of a multi-static response matrix
Won-Kwang Park

Goal-oriented optimal design of experiments for large-scale Bayesian linear inverse problems
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Comment

Comment on 'An explicit reconstruction method for magnetic resonance electrical property tomography based on the generalized Cauchy formula'
V Palamodov

Reply

Reply to comment on 'An explicit reconstruction method for magnetic resonance electrical property tomography based on the generalized Cauchy formula'
T Nara

http://iopscience.iop.org/issue/0266-5611/34/9

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Teacher, mentor, and friend. In honor of the 80th birthday of Professor Anatoly Borisovich Bakushinsky
Vasin, Vladimir V. / Kabanikhin, Sergey I. / Kokurin, Mikhail Y. / Leonov, Aleksander S. / Smirnova, Alexandra B.

Source conditions and accuracy estimates in Tikhonov's scheme of solving ill-posed nonconvex optimization problems
Kokurin, Mikhail Y.

Fast numerical method of solving 3D coefficient inverse problem for wave equation with integral data
Bakushinsky, Anatoly B. / Leonov, Alexander S.

https://www.degruyter.com/view/j/jiip.2018.26.issue-4/issue-files/jiip.2018.26.issue-4
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